



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

RANGEL-ALDAO *et al.*

Appl. No.: 10/055,430

Filed: January 25, 2002

For: **Malt Beverage Having Stabilized
Flavor and Methods of Production
Thereof**

Confirmation No.: 7557

Art Unit: 1761

Examiner: Kuhns, Sarah Louise

Atty. Docket: 1390.0070006/BJD/LDB

Declaration Under 37 C.F.R. § 1.131 by Adriana Bravo

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

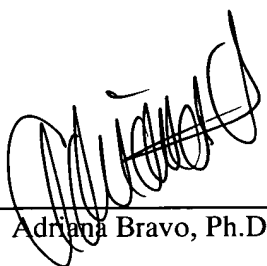
Sir:

I, the undersigned, Adriana Bravo, Ph.D., declare and state as follows:

1. I am a co-inventor of the subject matter of U.S. Application No. 10/055,430, filed January 25, 2002 ("the '430 application"), which is referenced above.
2. I hold the degree of Doctor of Philosophy. A copy of my Curriculum Vitae, accurately listing my scientific credentials and work experience, is attached hereto as Exhibit A.
3. I am also Corporate Manager of Chemistry at Cerveceria Polar, C.A., the assignee of the present application.
4. I am also named as an inventor in published European Patent Application No. EP 0 773 285 A2, which was published May 14, 1997.
5. I have read and understood the Office Action issued by the U.S. Patent and Trademark Office in the '430 application on December 29, 2005.

6. Prior to May 14, 1997, I or others working under my supervision had reduced to practice the invention that is presently claimed in the '430 application.
7. As a person signing below, I hereby declare that all statements made herein of our my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issue thereupon.

28/06/06
Date



Adriana Bravo, Ph.D.



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EDUCATION:

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POSITIONS:

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1993-1999 **Coordinator of Chemistry**, Polar Technology Center, Empresas Polar ,Caracas, Venezuela.

1988-1993 **Associate Researcher**, Laboratory of Biotechnology, Empresas Polar, Caracas, Venezuela.

SCIENTIFIC PUBLICATIONS

- (1) **ADRIANA BRAVO**, Beatriz Sánchez, Erika Scherer, Julio Herrera y Rafael Rangel-Aldao (2002) α -Dicarbonylic compounds as indicators and precursors of flavor deterioration during beer aging. *Masters Brewers Association of the Americas, Technical Quarterly*, vol. 39, N° 1, pp 13-23.
- (2) Beatriz Sánchez, Lorena Reverol, Iván Galindo-Castro, **ADRIANA BRAVO**, Rafael Rangel-Aldao and José Luis Ramírez. (2003) Brewer's yeast oxidoreductase with activity on Maillard reaction intermediates of beer. *Master Brewers of The Americas, Technical Quarterly*, vol. 39, N° 3, pp 204-212.
- (3) **ADRIANA BRAVO**, Beatriz Sánchez, Erika Scherer, Julio Herrera y Rafael Rangel-Aldao (2003). Compuestos alfa-dicarbonílicos como indicadores y precursores del deterioro del sabor durante el envejecimiento de la cerveza. *Cerveza y Malta*, XL(2) 158, 15-26.

- (4) **BRAVO, A.**, et al. (2001). The blockage of Maillard reaction intermediates prevents the formation of flavor notes during beer aging. *Monograph 31, 14 pp., European Brewery Convention. Symposium Flavour and Flavour Stability, Nancy, France.*
- (5) **BRAVO, A.**, Sánchez, B., Scherer, E., and Rangel-Aldao, R. (2001). Highly sensitive chemical indices of beer aging. *Proceedings of the 28th European Brewery Convention. 63:1-10.*
- (6) **BRAVO, A.**, Scherer, E., Madrid, J., Herrera, J., Virtanen, H., and Rangel-Aldao, R. (2001). Identification of alfa-dicarbonylic compounds in aged beers: their role in beer aging process. *Proceedings of the 28th European Brewery Convention. 64:1-10.*
- (7) Rangel-Aldao, R; **BRAVO, A.**; Galindo-Castro, I., Sánchez, B., Reverol, L.; Scherer, E.; Madrid, J.; Ramirez, J.L.; Herrera, J.; Penttilä, M.; Vehkomä, M.L.; Vidgren, V.; Virtanen, V. and Silja Home (2001) Beer flavor stabilization through the control of Maillard Reaction Intermediates. *Monograph 31, 14 pp., European Brewery Convention. Symposium Flavour and Flavour Stability, Nancy, France.*
- (8) Rangel-Aldao, R., **BRAVO, A.**, Galindo-Castro, I., Sánchez, B., Reverol, L.; Scherer, E.; Madrid, J.; Ramirez, J.L.; Herrera, J.; Penttilä, M.; Vehkomä, M.L.; Vidgren, V.; Virtanen, V. and Silja Home (2001). A new technology for beer flavor stablization: control of key intermediates of the Maillard Reaction. *Proceedings of the 28th European Brewery Convention, 61: 1-10.*
- (9) Sánchez, B., Reverol, L., Galindo-Castro, I., **BRAVO, A.**, Ramírez, J.L., and Rangel-Aldao, R. (2001), Brewers' yeast oxidoreductase with activity on Maillard reaction intermediates of beer. *Proceedings of 28th the European Brewery Convention. 48:1-09.*

PATENTS

- (1) "Malt beverage having stabilized flavor and methods of production thereof". Inventors: Rafael Rangel-Aldao, **ADRIANA BRAVO**, Beatriz Sanchez, and Ivan Galindo. US Patent No. 6,468,567, Oct. 22, 2002.
- (2) "Compositions for producing fermented malt beverages". Inventors: Rafael Rangel-Aldao, **ADRIANA BRAVO**, Beatriz Sánchez, Ivan Galindo-Castro. US Patent 6,372,269, Apr. 16, 2002.
- (3) "Malt beverage having stabilized flavor and methods of production thereof". **BRAVO, A.**, Sánchez, B., and Rangel-Aldao, R. European patent EP 0 773285 A2, December 18, 2002.
- (4) "Bebida de Malta que tiene sabor estabilizado y métodos de producción de la misma". Inventores: **ADRIANA BRAVO**, Beatriz Sánchez, Rafael Rancel-Aldao. Patente Mexicana N° 220172, Abril 2004.
- (5) "Bebida de Malta que tiene sabor estabilizado y métodos de producción de la misma". Inventores: Rafael Rancel-Aldao, **ADRIANA BRAVO**, Beatriz Sánchez e Iván Galindo-Castro. Patente Mexicana N° 220173, Abril 2004.

PATENT APPLICATIONS

- (1) "Malt beverage having stabilized flavor and methods of production thereof". Inventors: Rafael Rangel-Aldao, **ADRIANA BRAVO**, Beatriz Sanchez, and Ivan Galindo. US 20020142410 A1, October 2002.
- (2) "Malt beverage having stabilized flavor and methods of production thereof". Inventors: Ivan Galindo-Castro, Rafael Rangel-Aldao, **ADRIANA BRAVO** and Beatriz Sanchez. European Patent No. EP0924294 A2 and A3, Oct. 22, 2002.